

REMARKS

The Office Action dated February 2, 2006, has been received and carefully noted. The following remarks are submitted as a full and complete response thereto. Claims 1, 4-11, 13, and 19-40 are currently pending in the application, of which claims 1, 13, and 19 are independent claims. Claims 1, 4-11, 13, and 19-40 are respectfully submitted for consideration.

Rejection under 35 U.S.C. 102(b)

Claim 13 was rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,463,275 of Deakin ("Deakin"). Applicant respectfully traverses this rejection.

Claim 13, upon which claims 21-30 depend, is directed to a method for billing in a communications system. The method includes storing, in a memory, information identifying one of a plurality of charging nodes associated with a communication session as a default charging node for said session. The method also includes sending charging information for said session from a first communications node (GGSN) to said default charging node if available.

Certain embodiments of the present invention provide a method in which there is only one new interface, between the GGSN and SSGN. Thus, advantageously, a new variable need not be stored any place other than the GGSN, that being the address of the CG for the user/service. The SSGN already has a mechanism to store this. The new interface between SSGN and GGSN can keep this address synchronized such that the

corresponding addresses in the SSGN and the GGSN point to the same CG. Certain embodiments of the present invention also provide interfaces between SSGN and CG, and between GGSN and CG that can advantageously remain unchanged relative to the conventional technology.

Applicant respectfully submits that Deakin does not disclose or suggest all of the elements of any of the presently pending claims and therefore does not provide the above-described critical and unobvious advantages.

Deakin generally relates to a system and method for billing in a radio telecommunication network. Deakin, at column 1, lines 12-23, recognizes that in previous cellular telephone networks, billing was provided by a centralized system. This did not permit "Hot Billing" or pre-paid wireless service, because of the huge amounts of data processing involved. Accordingly, systems that wanted to provide such services had to adopt proprietary systems employing intelligent network (IN) systems, which were expensive, slow to deploy, and did not permit roaming. Deakin implicitly aims to solve these problems.

Deakin discloses a method in which Call Detail Records (CDRs) are passed to a single Charging Gateway (CG) as explained at column 1, line 5 to column 2, line 4. The CDRs are then routed to a particular billing system in dependence on the value of the Billing Class Identifier (BCI) associated with a particular CDR. The BCI is related to a particular subscriber or a particular subscriber service, as explained at column 2, lines 40-44. It is not related in any way to the charging node.

Applicants

Claim 13 recites, among other things, “storing, in a memory, information identifying one of a plurality of charging nodes associated with a communication session as a default charging node for said session.” Deakin does not disclose or suggest this feature. As mentioned above, the BCI disclosed in Deakin does not identify a charging node. Moreover, since Deakin discloses a system having only one charging node, it cannot identify one of a plurality of nodes as a default.

Moreover, claim 13 also recites “sending charging information for said session from a first communications node (GGSN) to said default charging node if available.” Deakin does not disclose or suggest these features. According to the method disclosed in Deakin, there is only a single charging node which receives all the CDRs. Even if Deakin was modified to include a plurality of charging nodes, the value of the BCI of a CDR would have no effect on which charging node the CDR would be sent to. Accordingly, Deakin does not disclose the method of claim 13 of the present application.

Applicant also submits that Deakin discloses a method wherein a BCI is retrieved from a HLR for a service initialized for a subscriber, such that the BCI describes how the network is to perform billing for this user and this service. The network nodes, SGSN and GGSN, receive this BCI and transmit it along with the Charging Data Records (CDRs) to a Charging Gateway (CG), as can be seen in Figure 7. The CG routes the CDRs to the correct Billing Systems (BS) according to the information contained in the BCI. The BCI is thus effectively an address of a BS. Deakin thus discloses a system that requires new data to be formed in the HLR, in order for there to be an interface for this

data between the HLR and SGSN and GGSN and further between SGSN and CG, and between the GGSN and CG. Therefore, Deakin cannot provide the above-described critical and unobvious advantages. Thus, it is respectfully requested that this rejection be withdrawn.

Rejections under 35 U.S.C. 103(a)

Claims 1 and 4-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,785,535 of Lucidarme et al. (“Lucidarme”) in view of Deakin. The Office Action took the position that Lucidarme teaches all of the elements of the claims except “wherein said memory comprising means for storing information identifying one of said charging nodes as being a default charging node for a communication session” and “said first node and said second node are arranged to send respective charging information for said session to said default charging node using said information stored in said memory, if said default charging node is available.” The Office Action cited Deakin to remedy these deficiencies of Lucidarme. Applicant respectfully traverses this rejection.

Claim 1, upon which claims 4-11 depend, is directed to a communications system including a first communications node (GGSN), a second communications node (SGSN), a plurality of charging nodes (CGF), and a memory. The first node includes means for sending charging information to at least one of said charging nodes. The second node includes means for sending charging information to at least one of said charging nodes.

The memory includes means for storing information identifying one of said charging nodes as being a default charging node for a communication session. The first node and said second node are arranged to send respective charging information for said session to said default charging node using said information stored in said memory, if said default charging node is available.

The advantages of certain embodiments of the present invention are described above. It is respectfully submitted that the combination of Lucidarme and Deakin fails to disclose or suggest all of the elements of any of the presently pending claims, and thus cannot provide the above-described critical and unobvious advantages.

Deakin is discussed above. Lucidarme generally relates to a method for monitoring communications in a cellular radio-communication system and a network core for such a system. As explained at column 1, lines 58-59, Lucidarme aims to allow wireless local area network (WLAN) subscribers to take advantage of services offered by the cellular network.

Lucidarme, as the Office Action observed, does not disclose or suggest “said memory comprising means for storing information identifying one of said charging nodes as being a default charging node for a communication session” and “said first node and said second node are arranged to send respective charging information for said session to said default charging node using said information stored in said memory, if said default charging node is available.” The Office Action cited Deakin as teaching these features.

In view of the argument above with regard to claim 13, it follows that Deakin does not disclose or suggest “said memory comprising means for storing information identifying one of said charging nodes as being a default charging node for a communication session.” This is because the BCI disclosed in Deakin is not related to a charging node. Thus, Deakin does not remedy the deficiencies of Lucidarme. Accordingly, it is respectfully requested that this rejection be withdrawn.

Claim 11 was rejected under 35 U.S.C. 103(a) as being unpatentable over Lucidarme in view of Deakin and further in view of U.S. Patent Application Publication No. 2005/0047378 of Wuschke et al. (“Wuschke”). The Office Action took the position that Lucidarme and Deakin teach all of the elements of claim 11 except “wherein said second memory is arranged to store information identifying at least one of said charging nodes” and “[wherein] said second memory is arranged so that the value stored in said memory is synchronised with the value stored in said second memory.” The Office Action supplied Wuschke to remedy the deficiencies of Lucidarme and Deakin. Applicant respectfully traverses this rejection.

Claim 11 is dependent on claim 10, which in turn is dependent on claim 1. Accordingly, it follows from the arguments given above that the combination of Lucidarme and Deakin does not disclose or suggest all of the elements of claim 11. Moreover, Wuschke does not remedy the above-described deficiencies of Lucidarme and Deakin.

Wuschke generally relates to a method, device, and software program for correlating data sets. As explained at paragraph 0013, Wuschke aims to enable simple charge logging when MMS services are used within the domain of the most recent mobile technologies. Accordingly, it is unsurprising that Wuschke is silent as to the above-described deficiencies of claim 1, such as: “said memory comprising means for storing information identifying one of said charging nodes as being a default charging node for a communication session.”

Accordingly, it is respectfully submitted that the combination of Lucidarme, Deakin, and Wuschke does not disclose or suggest all of the elements of claim 11. Therefore, it is respectfully requested that this rejection be withdrawn.

Claims 19-20 and 31-40 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wuschke in view of Deakin. The Office Action took the position that, with regard to claim 19, Wuschke teaches most of the elements of the claim except “said node being arranged to send charging information for said session to said default charging node if said default charging node is available.” The Office Action cited Deakin to remedy this deficiency.

Later in the rejection of claims 20 and 31-40 the Office Action cited “the combination of Wuschke et al. and Hurtta.” Applicant respectfully submits that no reference by the name of “Hurtta” is of record. Because there is no further explanation of what “Hurtta” refers to, it is respectfully requested that the rejection of claims 20 and 31-40 be withdrawn. Applicant also traverses the rejection of claim 19.

Claim 19, upon which claims 20 and 31-40 depend, is directed to a gateway communication node for use in a communication system. The node includes a memory for storing information identifying a default charging node (CG1) associated with a communication session (GPRS) to which said node is to send said charging information for said session. The node is arranged to send charging information for said session to said default charging node if said default charging node is available.

Advantages of certain embodiments of the present invention are discussed above. It is respectfully submitted that the combination of Wunschke and Deakin does not disclose or suggest all of the elements of any of the presently pending claims, and thus cannot provide the critical and unobvious advantages described above.

Deakin and Wunschke are described above. More particularly, at page 3, lines 6-11, Wunschke discloses how a GGSN produces a charging ID for a particular PDP context. The charging ID is forwarded to the corresponding SGSN so as to ensure that CDRs from both the GGSN and the SGSN are sent to the correct Charging Gateway. This process is described in the introduction to the description of the present application.

There is a distinct difference between a default charging node and an active charging node. As described in the present application, CDRs are sent to the default charging node when it is available. In Wunschke, in direct contrast, the CDRs are sent to the active charging node. This results in the problem described by the present application which can occur when a charging node becomes unavailable, resulting in a different charging node becoming the active node and, subsequently the first charging node

becomes available again. In such a case in the conventional technology, such as Wuschke, CDRs continue to be sent to the second charging node as it is still the active node, despite the fact that the original charging node has become available again.

Wuschke does not, therefore, disclose the feature of “said node comprising a memory for storing information identifying a default charging node (CG1) associated with a communication session (GPRS) to which said node is to send said charging information for said session.”

Furthermore, as noted above, Deakin also does not disclose a default charging node. Accordingly, the feature of “a node being arranged to send charging information for said session to said default charging node if said default charging node is available” as recited by claim 19 of the present application, is not disclosed by the combination of Wuschke and Deakin. Therefore it is respectfully requested that the rejection of claim 19 be withdrawn.

Claims 20 and 31-40 depend from claim 19 and recite additional features. Therefore, it is respectfully submitted that claims 20 and 31-40 contain subject matter that is neither disclosed nor suggested by the cited references. Thus, it is respectfully requested that the rejection of claims 19-20 and 31-40 be withdrawn.

Claims 21-30 were rejected under 35 U.S.C. 103(a) as being unpatentable over Deakin in view of Wuschke. The Office Action took the position that the combination of Deakin and Wuschke teaches all of the elements of the claims, and specifically cited

Wuschke as teaching “wherein said charging information comprises a charging data record.” Applicant respectfully traverses this rejection.

Claims 21-30 depend from claim 13. The deficiencies of Deakin with respect to claim 13 are discussed above. Wuschke does not remedy the deficiencies of Deakin with respect to claim 13, because Wuschke does not disclose or suggest at least “storing, in a memory, information identifying one of a plurality of charging nodes associated with a communication session as a default charging node for said session” as recited by claim 13.

Claims 21-30 include the limitations of claim 13 and recite additional limitations. Therefore, it is respectfully submitted that claims 21-30 recite subject matter that is neither disclosed nor suggested in the cited references. Thus, it is respectfully requested that the rejection of claims 21-30 be withdrawn.

Conclusion

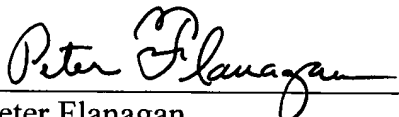
For the reasons explained above, it is respectfully submitted that each of claims 1, 4-11, 13, and 19-40 recites subject matter that is neither disclosed nor suggested in the cited references. It is therefore respectfully requested that all of claims 1, 4-11, 13, and 19-40 be allowed, and that this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by

telephone, the applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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